

Amendments to the Drawings:

The attached sheets of drawings include the cancellation of Figure 2, the replacement of Figure 4 with new Figure 4, and the addition of Figures 2a, 2b, 2c, 5, 6, 7, 8 and 9. The sheets, which include Figures 1 and 3, replace the original sheets including Figures 1 and 3. The sheets, which include new Figures 2a, 2b and 2c, replace the original sheet including Figure 2. The sheets, which include new Figures 4, 5, 6, 7, 8 and 9, replace the original sheet including Figure 4. In the sheets containing Figures 1 and 3, the sheet reference numbers, *i.e.*, 1 of 8 and 5 of 8, respectively, have been modified to reflect the addition of new sheets. In Figures 2a, 2b and 2c, consecutive and simultaneous adaptation, and last successful adaptation and starting off gear methods of original Figure 2 have been more clearly depicted. New Figures 4, 5, 6, 7, 8 and 9 include the strategies depicted in original Figure 4.

Attachment: Replacement sheets
New sheets

Remarks

Review of Telephonic Interview of December 1, 2005

On December 1, 2005, Robert C. Atkinson, Agent of Record, conducted a telephonic interview with Mr. Richard Lorence, Examiner for the above-identified application. At the outset, Applicant would like to thank the Examiner for his generous allowance of time to discuss the merits of the case and grounds of rejection. Applicant believes the interview was a productive and useful dialogue in resolution of the Examiner's concerns regarding introduction of new matter.

Examiner Lorence indicated the revisions to the drawings filed on June 22, 2005 with Reply to the Office Action dated February 23, 2005, were the primary basis of his 35 U.S.C. § 112, first paragraph, rejections, and as such were the principal focus of the interview. The interview provided a better mutual understanding of Examiner Lorence's objection. Specifically, including decision blocks in amended Figure 2 and new Figure 4 created an implication of the presence of means for determining which adaptation strategy to use. As means for determining which strategy to use are not taught in the application as originally filed, the decision blocks should be removed, thereby obviating the new matter objection. After reaching this mutual understanding of Examiner Lorence's objection, the Examiner conceded that if the decision blocks were removed, and the various adaptation strategies depicted in individual flowchart diagrams, the objection based on introduction of new matter would fall.

Amendments to the Specification

Paragraphs [0020], [0029], [0033] and [0033.1] have been amended to reflect the amendments to the drawings, *i.e.*, cancellation of Figure 2, replacement of Figure 4 and addition of new Figures 2a, 2b, 2c, 5, 6, 7, 8 and 9. Pursuant to Examiner's request paragraph [0029] has been amended to correct several informalities. Similarly, Applicants amended paragraph [0029] to correct several additional informalities. These amendments do not introduce any prohibited new matter.

Amendments to the Drawings

Figures 1 and 3 have been modified to reflect the correct number of total sheets after entry of this amendment, *i.e.*, 1 of 8 and 5 of 8, respectively. In new Figures 2a, 2b and 2c, consecutive and simultaneous adaptation, and last successful adaptation and starting off gear methods, of previously presented Figure 2, have been more clearly depicted. Support for this revision is found in Paragraphs [0019], [0033] and [0033.1]. In like fashion, replacement Figure 4 and new Figures 5, 6, 7, 8 and 9 more clearly depict the zero point correction strategies shown in previously presented Figure 4. Support for this revision is found in Paragraphs [0011], [0012], [0013], and [0029]. Therefore, Applicants respectfully submit that previously presented Figures 1 and 3, replacement Figure 4 and new Figures 2a, 2b, 2c, 5, 6, 7, 8 and 9 provide diagrammatic representations of the claims. Additionally, as the amendments to the drawings are fully supported by the specification and claims as originally filed, this amendment introduces no prohibited new matter.

The Objection to the Specification

Examiner Lorence objected to the amendment filed on June 22, 2005 with the Reply to the Office Action dated February 23, 2005, under 35 U.S.C. § 132(a) because it introduced new matter into the disclosure. Specifically, the Examiner asserted that there does not appear to be

support in the original disclosure for each of the steps depicted in the flowchart of the replacement sheet containing Figure 2 and the new sheet containing Figure 4. More specifically, Examiner Lorence contends that the specification lacks support for the decision block of Figure 2 which determines whether to carry out consecutive or simultaneous adaptation, the decision block of Figure 2 which determines whether to carry out the last successful adaptation or starting off gear method and the decision blocks of Figure 4 which determine whether to carry out Strategy 1, 2, 3, 4, 5, 6 or 7.

As described *supra*, Applicants have amended the drawings to comply with Examiner Lorence's requests, and therefore have rendered this objection moot. Withdrawal of this objection for the introduction of new matter is courteously requested.

The Rejection of Claims 1-17 Under 35 U.S.C. § 112

Claims 1-17 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, Examiner asserted that the claim(s) contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. More specifically, Examiner Lorence contended that while the various methods covered by the original claims were believed to be directed to different species of the claimed method, the description as amended and when taken in conjunction with the replacement drawings sheets (Figures 2 and 4) imply that the controller determines which of the various methods to employ, *i.e.*, consecutive vs. simultaneous adaptation, last successful adaptation vs. starting off gear method, and strategies 1-7 shown in Figure 4.

Regarding Claim 17, Applicants courteously submit that Claim 17 has been cancelled and therefore all rejections of Claim 17 are rendered moot. Additionally, in view of the amendments to the drawings and specification, this rejection of Claims 1-16 has also been rendered moot.

Withdrawal of the rejection of Claims 1-16 for failure to comply with the written description requirement is courteously requested.

The Rejection of Claim 17 Under 35 U.S.C. § 112

Claim 17 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As mentioned *supra*, Claim 17 has been cancelled thereby rendering this rejection moot.

The Rejection of Claim 17 Under 35 U.S.C. § 102(b)

Claim 17 was rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 5,065,849 (*Kono et al.*).

Again as mentioned *supra*, Claim 17 has been cancelled thereby rendering this rejection moot.

The Rejection of Claims 1-17 Under 35 U.S.C. § 103(a)

Claims 1-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 6,729,456 (*Beneton et al.*) in view of *Kono et al.*. Applicants respectfully traverse this rejection and request reconsideration for the following reasons.

Once again, as mentioned *supra*, Claim 17 has been cancelled thereby rendering the rejection to Claim 17 moot.

As Examiner Lorence has acknowledged and Applicants concur, *Beneton et al.* do not disclose the zero correction of the clutch actuating mechanisms. However, in view of their disclosure, Applicants courteously submit that zero correction is in fact taught away from as performing the method taught by *Beneton et al.* eliminates the need to perform a zero correction.

As disclosed in the instant application, a zero correction is used to maintain clutch characteristics, *e.g.*, transmitted clutch torque. The amount of transmitted clutch torque indicates

whether or not a clutch is engaged or disengaged. For example, when the transmitted clutch torque is zero the clutch is fully disengaged. However, as the transmitted clutch torque increases, the clutch will enter a slipping state, or partial engagement. Lastly, at the point when the frictional force between the clutch plates equals or exceeds the transmitted clutch torque, the clutch is fully engaged. As clutch plates wear, their thicknesses decrease. Thus, in order to maintain consistent performance of a clutch system as the plates deteriorate, *i.e.*, consistent application of pressure and thereby consistent engagement/disengagement forces, the transmitted torque versus plate displacement must be understood and accounted for. It is this relationship that the instant application relies upon, and *Beneton et al.* teach away from.

Beneton et al. do not rely upon this relationship as they teach intentionally wearing the plates to balance the clutch system. For example, as a first clutch wears more quickly than a second clutch, the second clutch is purposely worn down to match the first clutch wear. Intentionally deteriorating the second clutch prevents any need for understanding and accounting for the relationship between transmitted clutch torque and clutch plate displacement. As *Beneton et al.* teach intentional deterioration of the clutch plates to accommodate for plate wear, there is no teaching, suggestion or motivation to combine *Beneton et al.* with the *Kono et al.* method for correcting data used for a clutch control operation.

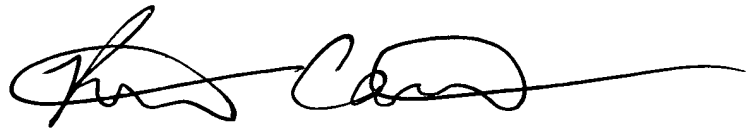
Hence, Applicants courteously submit that as there is no teaching, suggestion or motivation to combine the cited references, independent Claims 1 through 8 are non-obvious in view of *Beneton et al.* and further in view of *Kono et al.*. Additionally, it necessarily follows that Claims 9 through 16 are also non-obvious in view of *Beneton et al.*, and further in view of *Kono et al.*, due to their dependency from Claims 1 through 8. Accordingly, withdrawal of the rejection of Claims 1 through 16 under 35 U.S.C. §103(a) is appropriate and respectfully requested.

Attorney Docket No. : LUKP:115US
Appl. No. 10/711,225
Amdt. dated December 8, 2005
Reply to Office Action of September 14, 2005

Conclusion

For all the reasons outlined above, Applicants respectfully submit that the claims are patentable over the cited references and in condition for allowance, which action is courteously requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Robert C. Atkinson', with a long horizontal line extending to the right.

Robert C. Atkinson
Registration No. 57,584
CUSTOMER NO. 24041
Simpson & Simpson, PLLC
5555 Main Street
Williamsville, NY 14221-5406
Telephone No. 716-626-1564
Facsimile No. 716-626-0366

RCA/HME
Dated: December 8, 2005